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APPLICATION NO.	F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,239	03/24/2004		Ryuji Tomita	8017-1131	4530
466	7590	01/03/2006		EXAMINER	
YOUNG &	THOM	PSON	PHAM, LONG		
745 SOUTH 2ND FLOOI		TREET		ART UNIT	PAPER NUMBER
ARLINGTO		22202		2814	
				DATE MAIL ED: 01/03/2000	4

Please find below and/or attached an Office communication concerning this application or proceeding.

			M				
	Application No.	Applicant(s)	7110				
	10/807,239	RYUJI TOMITA ET A	AL.				
Office Action Summary	Examiner	Art Unit					
	Long Pham	2814					
The MAILING DATE of this communication a Period for Reply	ppears on the cover sheet w	ith the correspondence add	ress				
A SHORTENED STATUTORY PERIOD FOR REP	PLY IS SET TO EXPIRE 3 N	MONTH(S) OR THIRTY (30)	DAYS.				
WHICHEVER IS LONGER, FROM THE MAILING - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory perior - Failure to reply within the set or extended period for reply will, by state the provision of the provision of the maximum statutory perior of the provision of the	DATE OF THIS COMMUNI 1.136(a). In no event, however, may a and will apply and will expire SIX (6) MOI ute, cause the application to become A	ICATION. reply be timely filed NTHS from the mailing date of this com BANDONED (35 U.S.C. § 133).					
Status							
1) Responsive to communication(s) filed on 01	November 2005.						
, ,	nis action is non-final.						
3) Since this application is in condition for allow	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is						
closed in accordance with the practice under	r <i>Ex parte Quayle</i> , 1935 C.I	D. 11, 453 O.G. 213.					
Disposition of Claims							
4)⊠ Claim(s) <u>1-20</u> is/are pending in the application	on.						
4a) Of the above claim(s) is/are withdr	4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1,2,13 and 17</u> is/are rejected.							
7)⊠ Claim(s) <u>3-12,14-16 and 18-20</u> is/are objecte							
8) Claim(s) are subject to restriction and	/or election requirement.						
Application Papers							
9) The specification is objected to by the Examin	ner.						
10) The drawing(s) filed on is/are: a) a	ccepted or b) objected to	by the Examiner.					
Applicant may not request that any objection to the	ne drawing(s) be held in abeya	nce. See 37 CFR 1.85(a).					
Replacement drawing sheet(s) including the corre							
11) The oath or declaration is objected to by the	Examiner. Note the attache	d Office Action or form PTC	D-152.				
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreignal All b) Some * c) None of:	gn priority under 35 U.S.C.	§ 119(a)-(d) or (f).					
1. ☐ Certified copies of the priority docume	nts have been received.						
2. Certified copies of the priority docume		Application No					
3. Copies of the certified copies of the pr			tage				
application from the International Bure	eau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a li	st of the certified copies no	t received.					
Attachment(s)							
1) Notice of References Cited (PTO-892)		Summary (PTO-413)					
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/0 		(s)/Mail Date Informal Patent Application (PTO-	152)				
Paper No(s)/Mail Date	6) Other:		-				

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DETAILED ACTION

Rejections and/or objections necessitated by the amendments Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 as presently amended and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miles et al. (US publication 2001/0038138) in combination with Kitada et al. (US publication 2003/0160262).

With respect to present amended claim 1 and claim 2, Miles et al. teach the invention as claimed. See the 102 rejection of claims 1 and 2 in office action dated 08/04/05.

Further with respect to presently amended claim 1, Miles et al. fail to teach that the first and second guard rings extending into the substrate.

Kitada et al. forming first and second guard rings that extend into a semiconductor layer or substrate (since no substrate, the semiconductor layer functions as a substrate) to improve breakdown voltage. See figs. 23a and 23b and [0011].

It would have been obvious to one of <u>ordinary skill</u> in the art of making semiconductor devices to incorporate the teaching of Kitada et al. into the device of Miles et al. to obtain the above benefit.

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Further with respect to presently amended claim 1, Miles et al. fail to teach that connections between the first and second rings extending into the substrate.

However, the formation of buried connections between buried elements in a substrate is well-known.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 13 as newly added is rejected under 35 U.S.C. 102(b) as being anticipated by Miles et al. (US publication 2001/0038138).

With respect to newly added claim 13, Miles et al. teach the invention as claimed. See the 102 rejection of claim 1 in office action dated 08/04/05.

Further with respect to newly added 13, Miles et al. further teach forming a insulating layer or passivation layer 13 and the first and second rings and the connections are formed in the insulating layer. See figs. 2,3, and 4.

Claim 17 as newly added is rejected under 35 U.S.C. 102(b) as being anticipated by Miles et al. (US publication 2001/0038138).

With respect to newly added claim 17, Miles et al. teach the invention as claimed. See the 102 rejection of claim 1 in office action dated 08/04/05.

Further with respect to newly added 13, Miles et al. further teach the second guard ring being spaced from the first guard ring and not overlappging the first guard ring when viewed from a direction perpendicular to a surface of the substrate. See figs. 2,3, and 4.

Allowable Subject Matter

Claims 3-12, 14-16, and 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Response to Arguments

Applicant's arguments with respect to claims 1, 2, 13, and 17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long Pham whose telephone number is 571-272-1714. The examiner can normally be reached on Mon-Frid, 10am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Long //Phank

Primary Examiner

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